

WHAT IS CLAIMED IS:

1. A heat sink comprising:
  - a thermally conductive base comprised of a variable density graphite foam article having a first and second opposed surfaces; and
  - an electronic component thermally coupled to the second surface of the thermally conductive base.
2. The heat sink of claim 1, further comprising a plurality of fin structures extending upwardly from the thermally conductive base.
3. The heat sink of claim 1, wherein the thermally conductive base density is comprised of about 90% graphite foam.
4. The heat sink of claim 2, wherein the plurality of fin structures is comprised of about 25% graphite foam.
5. The heat sink of claim 2 wherein the plurality of fin structures are formed at the first surface of the thermally conductive base.
6. The heat sink of claim 1 further comprising a copper article spread on the second surface of the thermally conductive base.
7. The heat sink of claim 6, wherein the copper article contacts the electronic component.
8. The heat sink of claim 6, wherein the copper article is about .125" thick.
9. The heat sink of claim 1, further comprising a copper sleeve spread between the first and second surfaces.

10. The heat sink of claim 3, wherein the nominal dimensions of the 90% dense graphite foam base is about 1.331"x 1.091" and 1.43" high with corner radii of 0.151".
11. A heat sink comprising a variable density graphite foam article shaped so as to provide a first and second surfaces, wherein arranging the second surface of the graphite foam article in operative connection with an electronic component causes dissipation of heat from the electronic component through the second surface of the graphite foam article.
12. The heat sink of claim 11, further comprising a copper article spread over the second surface of the graphite foam article.
13. The heat sink of claim 11 wherein the first surface of the graphite foam article is comprised of about 25% graphite foam.
14. The heat sink of claim 11 wherein the second surface of the graphite foam article is comprised of about 90% graphite foam.
15. The heat sink of claim 11 further comprising a copper sleeve spread between the first and second surfaces.
16. An evaporative chamber comprising:
  - a copper chamber assembly having first and second opposed surfaces;
  - a electronic component thermally conductive with the second surface of the copper chamber assembly.
17. The evaporative chamber of claim 16, wherein interior of the second surface base is comprised of 25% graphite foam.

18. The evaporative chamber of claim 17, wherein the 25% graphite foam is a liquid conduit for heat collection from the electronic component.
19. The evaporative chamber of claim 16, wherein the first surface contains apertures for heat dissipation.
20. The evaporative chamber of claim 16, wherein the outer surface of the copper chamber assembly is formed of about 90% graphite foam.
21. The evaporative chamber of claim 16, wherein the first surface is comprised of a plurality of fins.